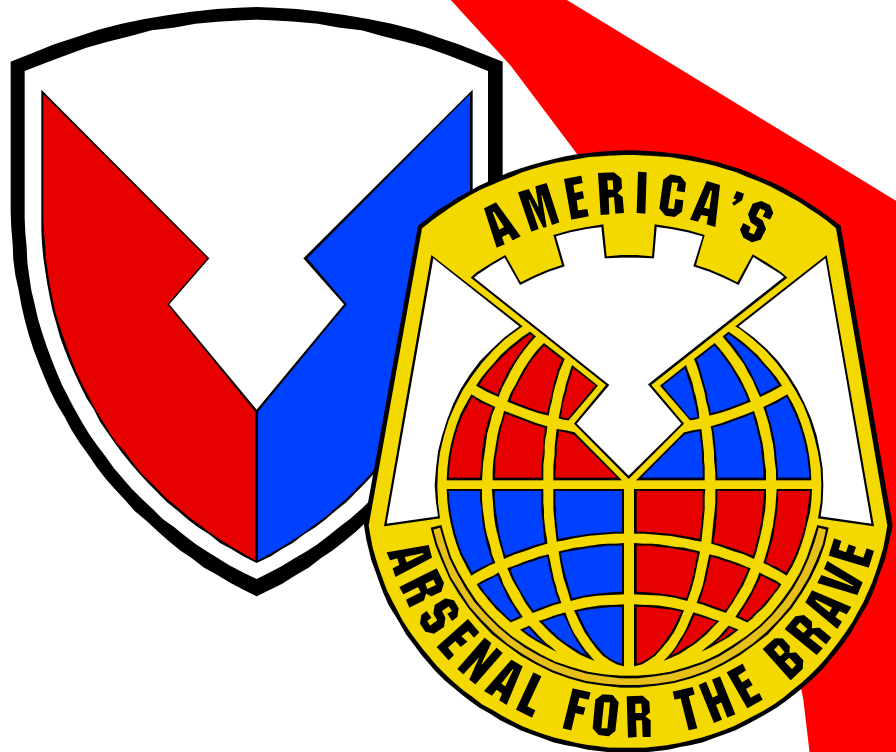


*Presented by:*  
**DCS Ammunition**

# **Army** **Materiel** **Command**

***Ammunition Overview  
to New Commanders***

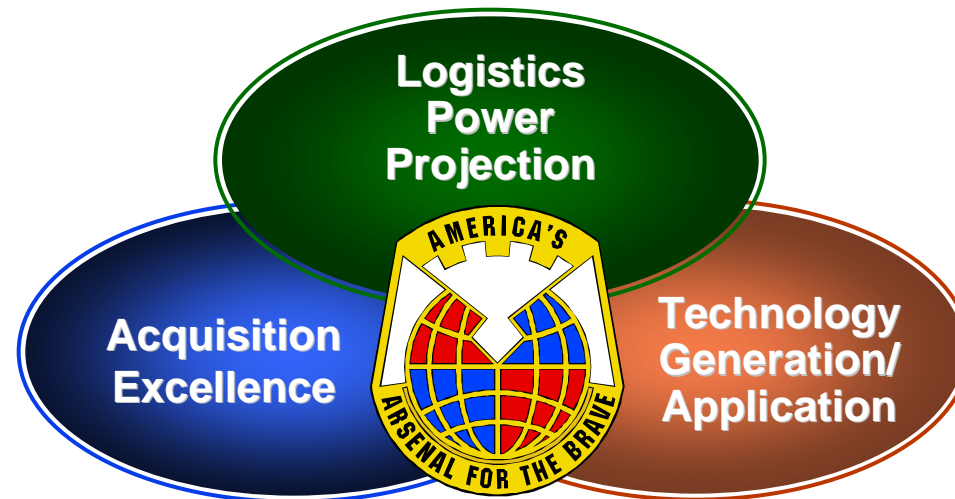
***June 1999***



**A M C – Your *READINESS* Command. . . Serving Soldiers *PROUDLY!***



# *DCS Ammo CORE Competencies*



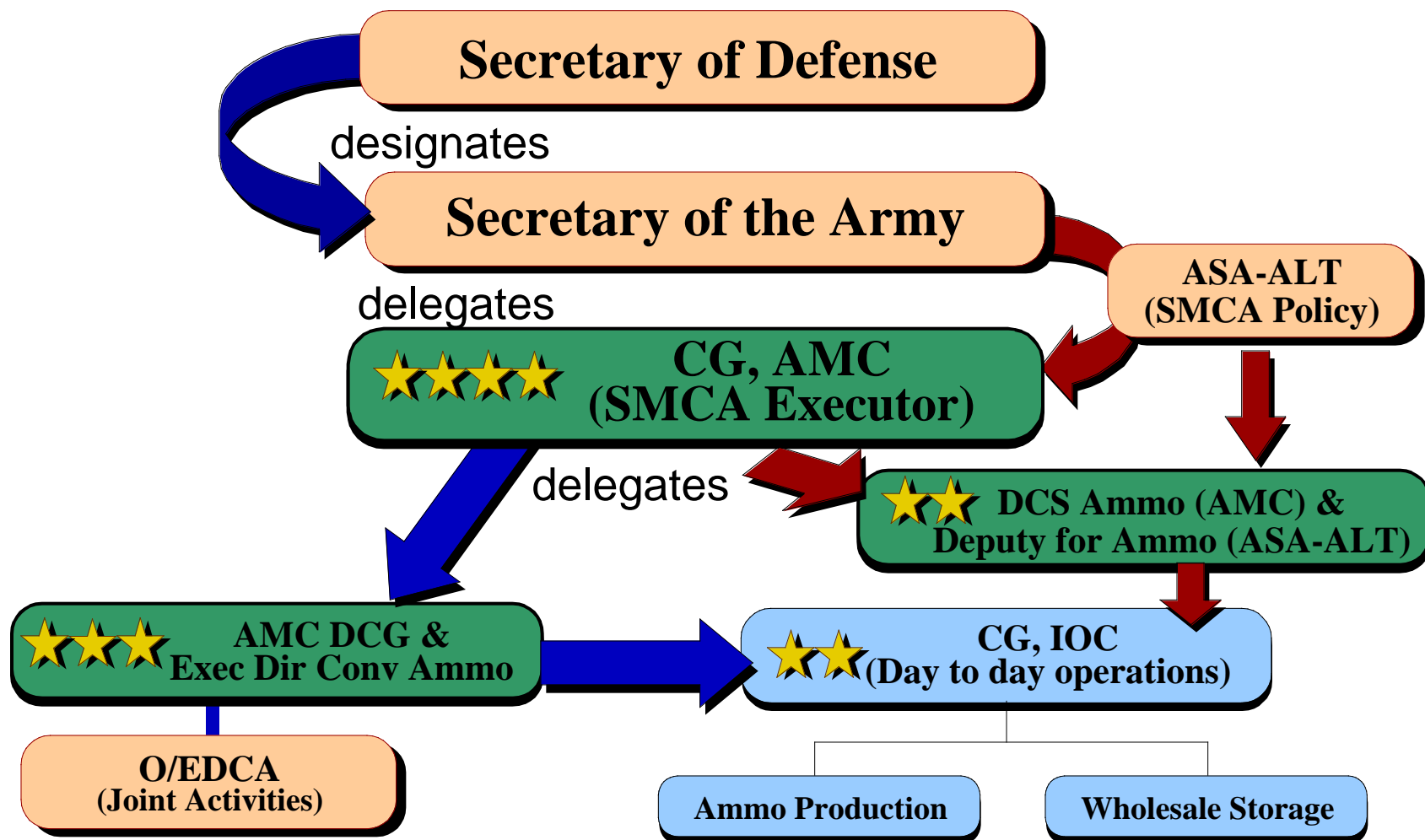
*DCS Ammo Mission Encompasses all 3 CORE Competencies*

*Represents an Integration of ASA-ALT and AMC Responsibilities*

*DCS Ammo Organized for Total Life Cycle Management  
of Ammunition*



# *Who is the Single Manager for Conventional Ammunition (SMCA)?*





# *Under Secretary of the Army*

**23 Aug 1988**

- ★ **The DCS Will Have All AMC HQ and Former DCSRDA Staff Responsibilities for Ammunition.**
  - This Includes AMMO R&D, Procurement, and Production Staff Management, Single Manager for Conventional Ammunition (SMCA) Oversight, Planning, Programming, and Budgeting, Ammo Management Information Systems and Integration of Ammunition Logistics.
- ★ **The DCSA Will Essentially Be Dual-hatted as DA-SARDA's Executive Agent for Ammunition and He and His Staff Will Provide the DA Level Ammo Program and Budget Review Capability.**

*Michael P. W. Stone*  
*Under Secretary of the Army*



# *Major Responsibilities*

**HQDA**

**ASA(ALT)**

- \* Ammo RDTE Oversight
- \* Manage Ammunition Appropriation (PAA)
- \* PPBES
- \* Ammunition Hardware Integration
- \* Ammunition Industrial Base Planning
- \* Congressional/OSD Interaction

**AMC**

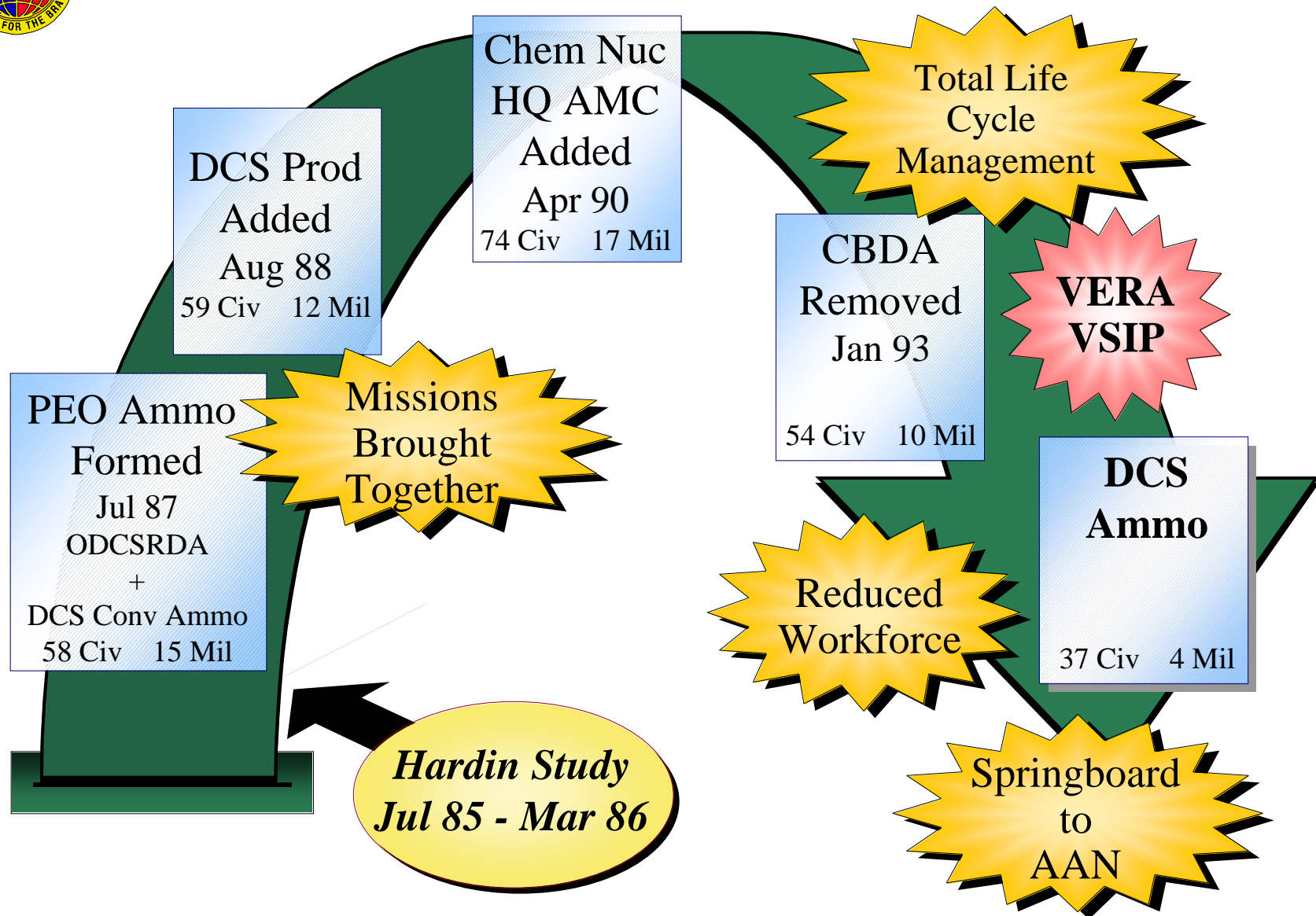
**AMC-AM**

- \* Ammunition Production Base Management
- \* Distribution
- \* Storage, Receipt and Issue
- \* Demil
- \* Supply Depot Operations (O&MA)
- \* Functional Proponent

***ASA-ALT & AMC - An Integration Success Story***



# *DCS for Ammunition -- Evolution*

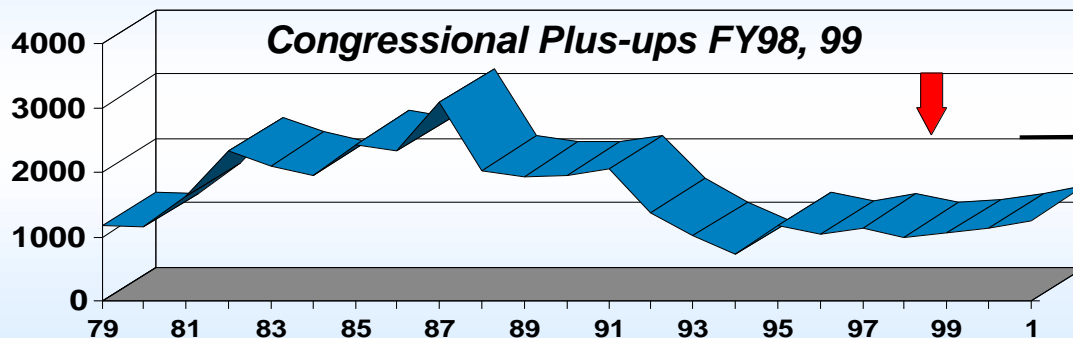






# PAA - Funding Profile

## PAA Historical Trend (\$M)

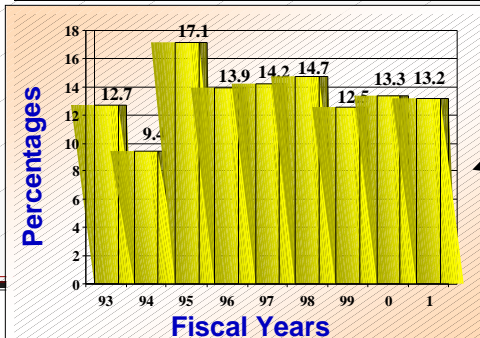
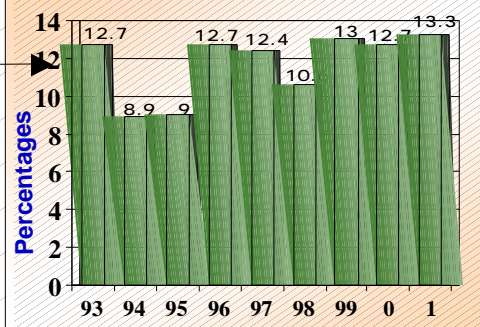


**Today's  
Production  
Reflects  
Yesterday's  
Funding -**

## Procurement as a Percentage of Army Budget - FY00/FY01

Army Budget (\$ in Millions)		
APPROPRIATION	FY00	FY01
FAMILY HOUSING	1,112	1,062
MIL PERSONNEL	27,848	28,748
RDTE	4,426	4,750
MCA	695	1,843
OMA	22,934	23,705
<b>PROCUREMENT</b>	<b>8,569</b>	<b>9,532</b>
ERA	378	383
BRAC	155	409
CHEM DEMIL	1,169	986
AWCF	62	63
TOTAL*	67,349	71,481

\*Totals may not add due to rounding



## Procurement Appropriation (\$ in Millions)

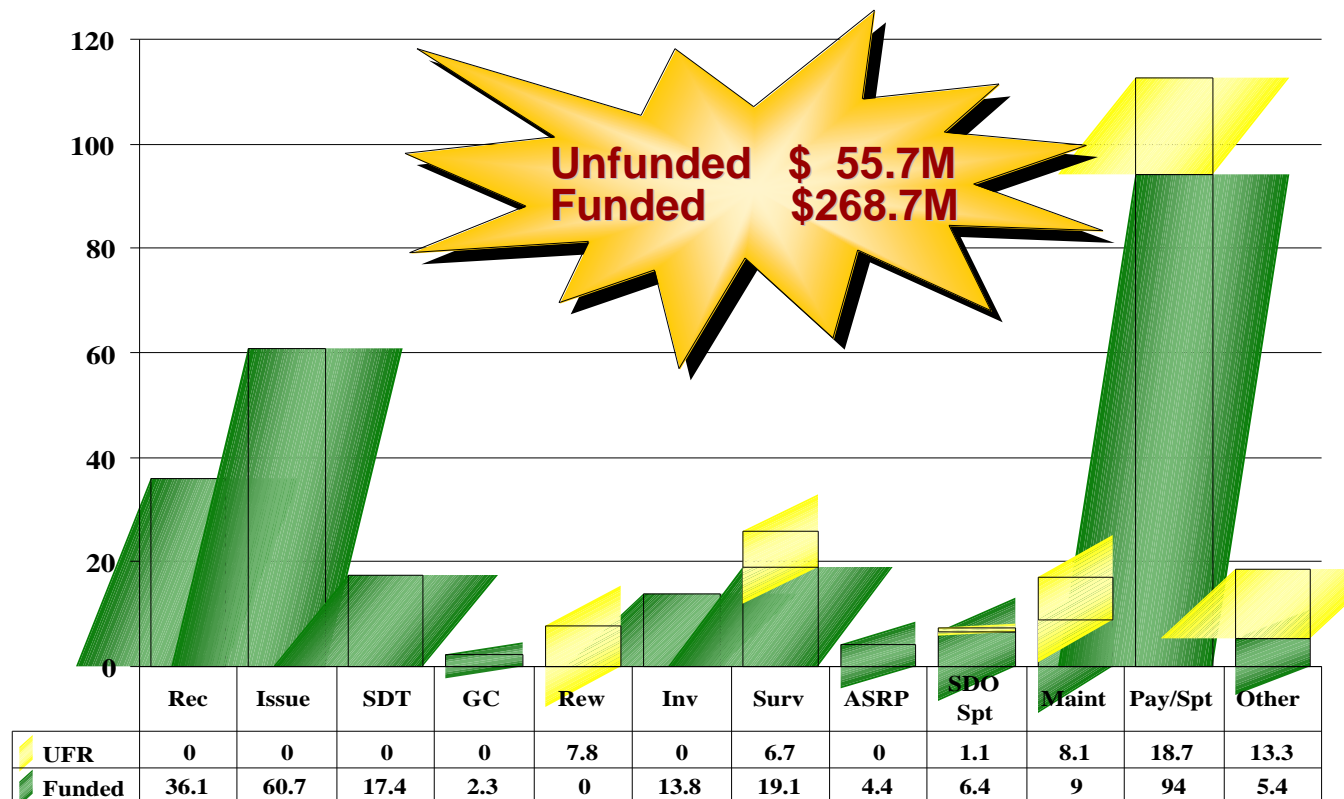
APPROPRIATION	FY00	FY01
AIRCRAFT	1229.8	1311.8
MISSILES	1358.1	1413.3
WTCV	1416.8	1499.8
<b>AMMUNITION</b>	<b>1140.8</b>	<b>1256.9</b>
OTHER PROCUREMENT	3423.9	4050.4
TOTAL	8569.4	9532.2

**Ammunition as a Percentage of The  
Procurement Budget - FY00/FY01**



# Conventional Ammo Stockpile Mgmt

Functions performed by AMC to manage all Services wholesale Conventional Ammunition Stockpile. Includes storage, distribution, inventory, surveillance, maintenance (Army only), inventory of stock and all administrative processes associated with the SMCA mission.

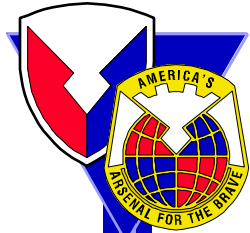


✂ No Funding for Re-warehouse

Receipt, Issue, SDT Fully Funded

Source: 1st Qtr IOC Report

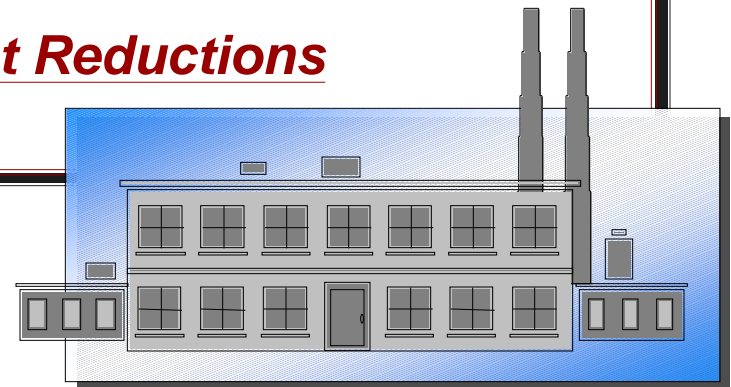


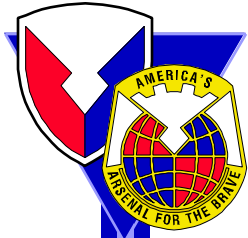


## Goal

### *Provide a Defense Industrial Base That:*

- ★ Procures Ammunition for Training During Peacetime
- ★ Procures War Reserve Readiness Stocks
- ★ Supports Contingency Requirements
- ★ Replenishes Training/War Reserve Stocks after Conflict
- ★ Maintains Technological Skill Base
- ★ Serves as Insurance Against Strategic Uncertainty
- ★ Incorporates *Efficiencies/Cost Reductions*





# *Industrial Base Policy 98-1*

## *A Strategy . . .*

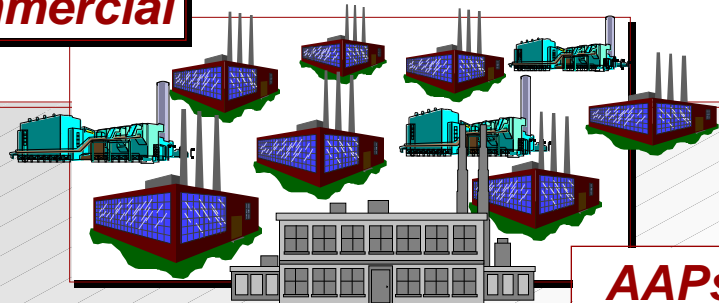
- \* **Manage ammunition using DOD's lifecycle acquisition process.**
- \* **Use acquisition reform initiatives to stabilize the business environment and provide incentives for private investment in the production base.**
- \* **Rely on the private sector to create and sustain ammunition production assets in response to production and replenishment contracts.**
- \* **To the maximum extent feasible, transition government - owned ammunition production assets to the private sector while preserving the ability to conduct explosives handling Operations safely.**



# Ammunition Production Base

***FY00-01 Budget***

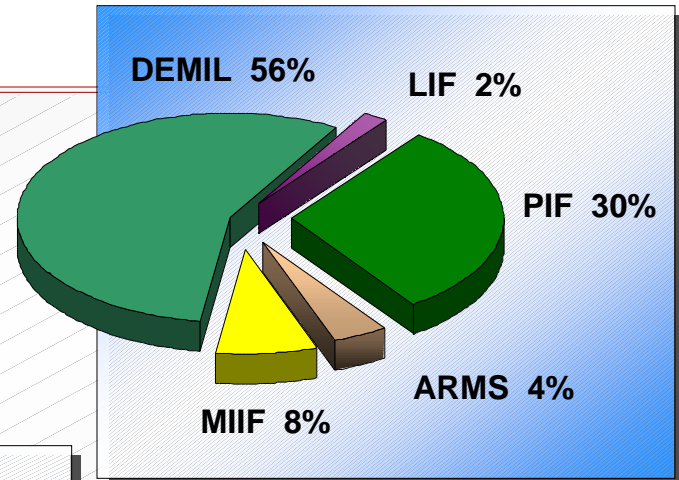
***Commercial***



***AAPs***

***Activity 2 PAA Funding***

	<b><i>\$ Million</i></b>	
	<b><i>FY99</i></b>	<b><i>FY00</i></b>
Industrial Facilities (IF)	50.5	46.1
Layaway of Industrial Facilities (LIF)	15.3	3.5
Maintenance of Inactive Facilities (MIIF)	15.8	13.0
Conventional Ammo Demil	82.7	86.3
Arms Initiative	4.8	4.8
<b>Totals (\$ in Mil)</b>	<b>169.1</b>	<b>153.7</b>



***Challenge***  
Production Base  
vs.  
Hardware



# Ammunition Production Base Support



## Active Facilities

- ★ **Government-Owned, Government-Operated (GOGO)**
  - ↳ Crane Army Ammunition Activity
  - ↳ McAlester Army Ammunition Plant
  - ↳ Pine Bluff Arsenal
- ★ **Government-Owned, Contractor-Operated (GOCO)**
  - ✓ Holston Army Ammunition Plant
  - ✓ Iowa Army Ammunition Plant
  - ✓ Lake City Army Ammunition Plant
  - ✓ Lone Star Army Ammunition Plant
  - ✓ Milan Army Ammunition Plant
  - ✓ Radford Army Ammunition Plant
  - ➔ Hawthorne (Depot) Army Ammunition Activity

## Reserve Facilities

- ★ **GOCO**
  - ✓ Kansas (Partial) Army Ammunition Plant
  - ✓ Louisiana Army Ammunition Plant
  - ✓ Mississippi Army Ammunition Plant
  - ✓ Riverbank Army Ammunition Plant
  - ✓ Scranton Army Ammunition Plant

## Excess Facilities

- ★ **GOCO**
  - Badger AAP
  - ◆ Indiana AAP
  - Kansas (partial) AAP
  - Longhorn AAP
  - Sunflower AAP
  - ◆ Volunteer AAP
  - Alabama AAP
  - Cornhusker AAP
  - ◆ Joilet AAP
  - PDW AAP
  - Ravenna AAP
  - Twin Cities AAP
- ◆ **Special Legislation - Land Transfer**





# Ammunition Production Base Support

## Active GOCO Facilities



<u>Facility</u>	<u>Contractor</u>	<u>Core Processes</u>	<u>Personnel</u>
Holston	Royal Ordnance of North America	Energetics – HMX.RDX, R&D	TBD
Iowa	American Ordnance	Load, Assemble, & Pack – Tank/Artillery	929
Lake City	Olin Winchester	Small Arms Manufacturing	1002
Lone Star	Day & Zimmermann	Load, Assemble, & Pack – Grenades, Initiators/Detonator, Mines, Cargo Carry Munitions	434
Milan	American Ordnance	Load, Assemble, & Pack – Mortars, 40mm Cartridges, C-4	970
Radford	Alliant Techsystems	Propellant Manufacturing	1200





# Ammunition Production Base Support

## Active GOGO Facilities



### Facility

### Core Processes

### Personnel

#### Pine Bluff Arsenal

Chemical, Smoke, Incendiary, Illumination and Other Pyrotechnic Munitions, Agents and Mixes, Chemical Defensive/Protective Items and Test Equipment and Maintenance Certification/Rebuild

830

#### Crane Army Ammunition Activity

Receive, Issue, Store, Renovate, Demilitarize and Produce Conventional Ammunition

602

#### McAlester Army Ammunition Plant

Load and Pack of Conventional Ammunition, Bombs, Warheads and Rockets. Produce, Renovate, Demilitarize and Store Ammunition and Related Components

760





# *Armament Retooling and Manufacturing Support (ARMS)*

## *\* Initiative Legislated in FY93 with Goals:*

- Reuse Idle Ammo Industrial Capacity Through Commercialization
- Seek Cost Avoidance
- Improve Readiness Through Production Efficiencies
- Sustain Economic Development
- Retain Skill Base
- Model for Defense Conversion



**ARMS - X  
1997 Effort to  
Extend ARMS  
to Depots**

**Facilities as  
Assets**



# Armament Retooling and Manufacturing Support (ARMS)

## Cost Avoidance

- \* Overhead Operating Cost
  - ↳ Iowa AAP - 18%
  - ↳ Radford AAP - 28%
- \* Zero Maintenance Cost
  - ↳ Achieved at 3 Facilities
  - ↳ Projected at 3 Facilities

**Price Waterhouse  
Audit Completed  
April 1999**

## Investments

- \* Army/Appropriated
  - ↳ FY93-99: \$204M\*
- \* Obligated/Awarded: \$186M
- \* Contractor/Tenants
  - ↳ FY93-99: \$117M



Commercialization

**ROI = 5 Years**

## Skills Retained

- \* 32 of 33 at Indiana
- \* 13 of 15 at Mississippi

## Economic Benefits

- \* 181 Commercial Tenants
- \* 2,621 Jobs
- \* Wages - \$74M
- \* Community Return - \$442M







# *FY99 Def Authorization Act Change*

**As SMCA**

## *Section 806: The LAW*

### \* **Authority**

- **To Restrict Conventional Ammo Procurement - ICW Section 2304c, Title 10 US Code.**
  - Sources with national technology
  - Industrial Base

### \* **Requirement**

- **“Shall Limit” Procurement w/in National Technology & Industrial Base**
- **SMCA Determines Limitations**
  - Maintain facility, producer, manufacturer, or other supplier

### \* **Conventional Ammo Definition**

- **Found in DoD Dir 5160.65, Mar 95**

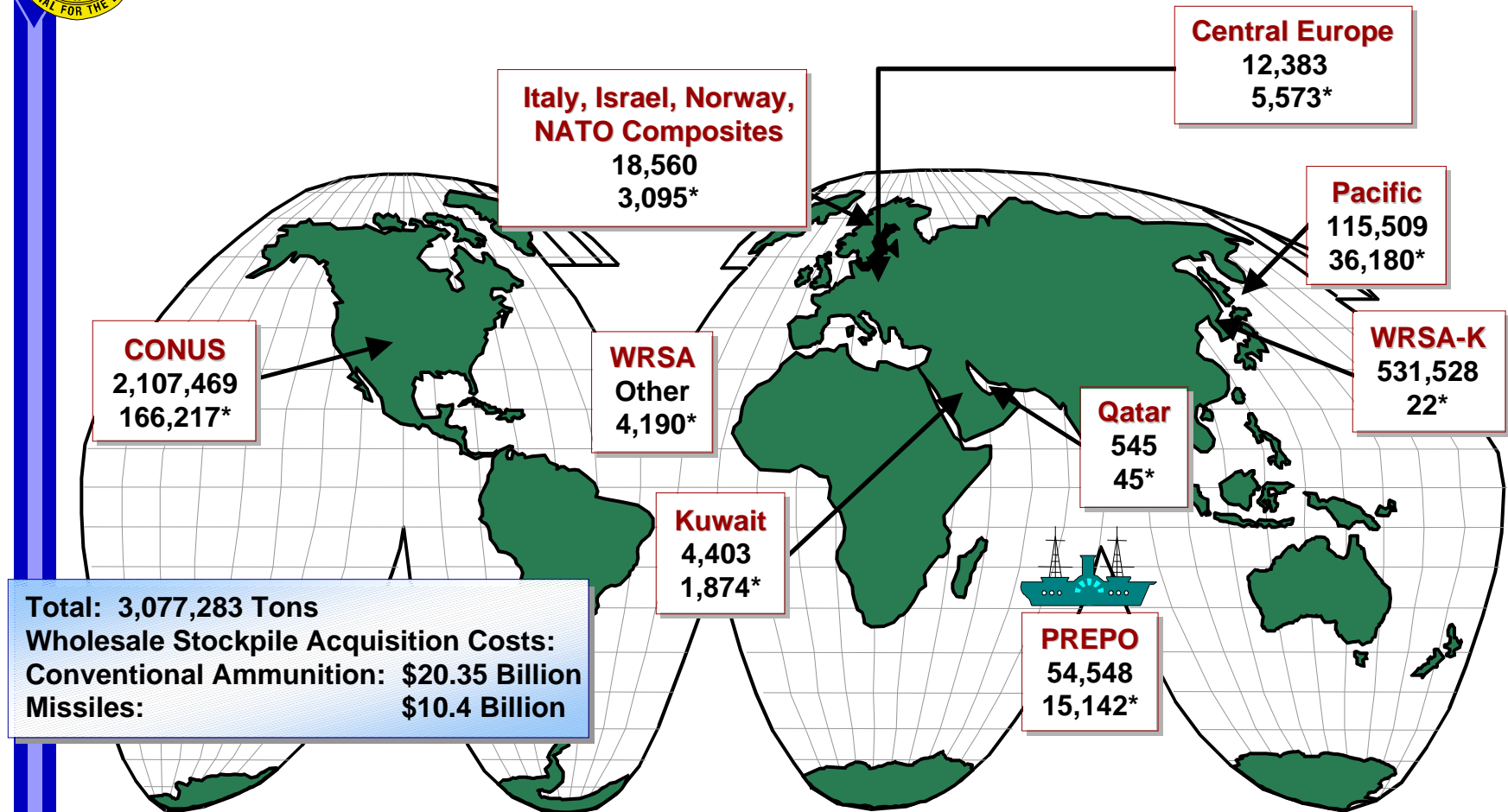
## *Implications*

- \* **SMCA (presumptively through CG AMC) is responsible for determining** if industrial base preservation is required
- \* **SMCA is responsible for directing** said preservation
- \* **SMCA may determine** a preservation action is required but that action requires **direction be given on PEO or other Service non-SMCA** conventional ammo procurements
- \* **How does Army implement?**

*Legal Counsel Review  
supports need for change -  
May affect FAR, MDA*



# Stockpile Management



**Total: 3,077,283 Tons**  
**Wholesale Stockpile Acquisition Costs:**  
**Conventional Ammunition: \$20.35 Billion**  
**Missiles: \$10.4 Billion**

**Notes:**

OCONUS = AMC Accountable (Army Only)  
 CONUS = AMC Accountable (All Services)  
 \*Missiles

Sources: Conventional Ammunition: CCSS/SAAS/AMCOM Mar 99  
 Missiles: SDS 1 Mar 99

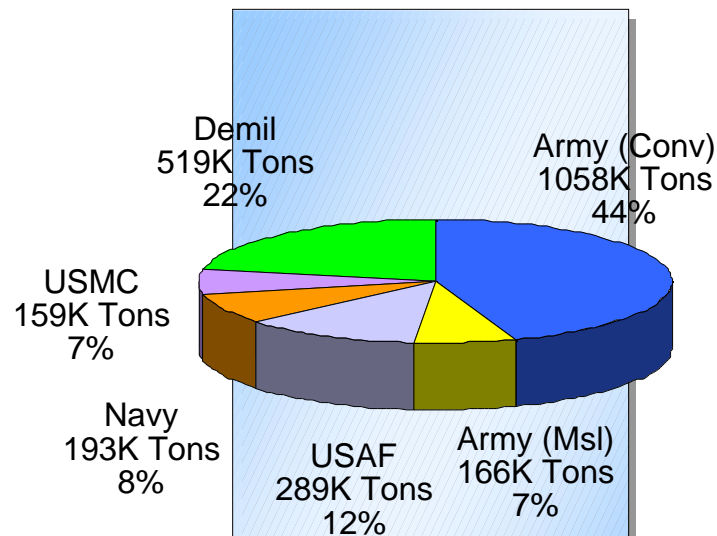
POC: Deb Watson, AMSIO-SMA-I, DSN 793-3645  
 Bob Sharp, AMSAM-IMMC, DSN 746-1237





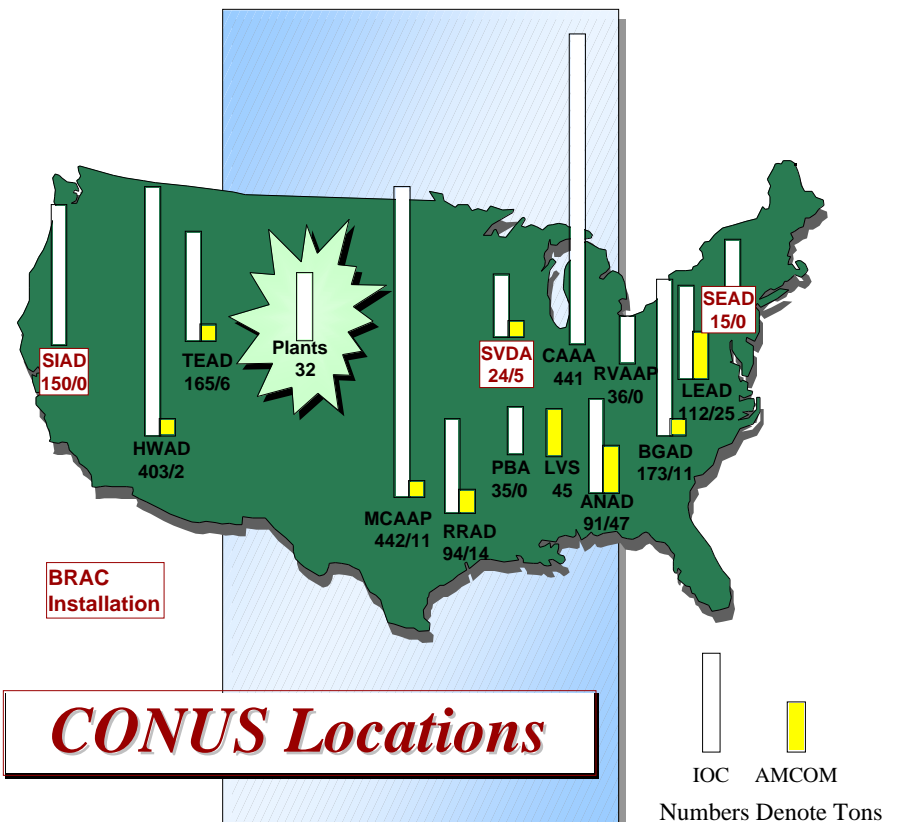
# CONUS Wholesale Stockpile

*All Services*



**CONUS Customers**  
Total Tons: 2,384,000

Source: Feeder Data 30 Sep 98, CCSS MASSET 1 Oct 98  
Missiles: SDS and CCSS, Sep 98



**CONUS Locations**

POC: Deb Watson, AMSIO-SMA-I, DSN 793-3645  
Bob Sharp, AMSAM-IMMC, DSN 476-1237



# *SMCA Demilitarization Campaign Plan*

- \* Use Older Munitions for Training
- \* First-In, First-Out
- \* CC-E Munitions for Training

## **Salvage**

- \* Sell Inert Items when possible
- \* Reclaim/Remanufacture Explosives
- \* Maximize recycling

- \* Leverage with OSD R&D funding
- \* Develop environmentally friendly demilitarization procedures

- \* Determine Size of Problem
- \* Leverage with Conventional Ammunition Demilitarization Program
- \* Use Private Industry
- \* Extend Shelf-life (ASRP)
- \* Increase Demilitarization R&D efforts

- \* Legislation Implemented
- \* Allow Greater Sales to Private Industry
- \* Barter for Additional Demilitarization

- \* Allow Partnering
- \* Allow Private Industry to Use Excess Government Capacity
- \* Maximize Government Operations
- \* Reduce Costs

- \* Maximize OB/OD While Still Available
- \* Concurrently and Further Develop R3
- \* Encourage More Participation by Private Industry
- \* Allow Partnering On a Government Facility
- \* Seek Alternate Uses Prior to Demilitarization
- \* Training
- \* Other Services
- \* FMS
- \* Legislation

- \* Increase Capability/Capacity
- \* Get Rid of Small, Difficult Items
- \* Free Up Additional Storage Space
- \* Keep Ahead of Stricter Environmental Rules
- \* Use R3

**Goal--**  
Demil backlog at a manageable level  
by 30 Sep 2010



# *Demilitarization by the Numbers*

## ***FY1985 through FY1993--***

- \*Tons demilitarized: 265,607 tons
- \*Tons generated: 368,200 tons
- \*Funding: \$216.24M

## ***FY1994 through FY1998***

- \*Tons demilitarized: 556,580 tons
- \*Tons generated: 1,082,168 tons
- \*Funding: \$590.11M

## ***Current Stockpile status:***

- \*Tons backlogged: 518,642
- \*POM generations: +500,000 tons



- \*Army is demilitarizing on its timetable
- \*Need to stay in front of future environmental issues
- \*Must demilitarize before someone designates this stockpile a hazardous waste



# *Conventional Ammunition Demilitarization*

## *Indefinite Delivery/Indefinite Quantity Contract:*

- \* Two five year ID/IQ contracts
- \* General Dynamics Ordnance:
  - EBV (Germany)
  - HiTech
  - Ease
  - Primex
  - Alliant
  - Aerotech
  - ICI
  - TPL
  - General Atomics
- \* PB/NAMMO Demil LLC (Parsons Brinckerhoff/Bofors)
  - NAMMO (Sweden)
  - Tooele AD
  - ICI (limited scope)
  - McAlester AD
  - El Dorado Eng
  - Crane AA
  - Quantitech
- \* FY1999 value--\$60.7M (total value could approach \$300M)
- \* Nine families (58% of the assets in the demilitarization stockpile):
  - Pyrotechnics
  - Explosive D
  - Propellant Chgs
  - Bombs
  - ICMs
  - Fuzes
  - HE Ctgs
  - Bulk Propellant
  - Small Caliber Ammunition
- \* After first year, each order will be competed between two primes
- \* Expect between 30% to 70% split between the two primes





# *Conventional Ammunition Demilitarization*

## *OCONUS Demilitarization Program:*

### **\* USAREUR--**

- Started in FY1992
- 35,032 tons demilitarized
- 6,419 tons currently on contract
- Total funding--\$35M
- 95% of effort performed by private industry
- USAREUR effort winding down to a steady state

### **\* USARPAC--**

- Started in FY1993
- 12,336 tons demilitarized at a cost of \$14.5M
- Major efforts--
  - Demilitarization of 21K Air Force 750-lb bombs on Guam
  - Installation of small arms/components furnace in Japan (FY2000)
  - Recycling center in Korea (FY2001)

### **\* Estimated retrograde cost avoidance--\$63.3M**





# ***Ammunition Management Career Program CP-33***

## ***Functional Chief / Functional Chief Representative Manage Program***

**Functional Chief (FC)  
Commanding General AMC**

***GENERAL COBURN***

**Functional Chief Representative (FCR)  
Assistant Deputy Chief of Staff  
for Ammunition, AMC**

***MR. JAMES C. HILL***

### **Functional Chief/Functional Chief Representative Responsibilities**

- \* Manage Career Program Objectives
- \* Monitor Affirmative Action Goals
- \* Assist DCSPER with CP Regulations
- \* Member of DA CP Policy Committee

***CP Planning Boards: FCR Chair & Senior Careerists Determine CP Direction & Vision***

***Screening Panel: Senior Careerists Evaluate & Rate Careerist's Referral Packages***

**Daily Activities: Provided by CP Manager at U.S. Army Defense Ammunition Center**